



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/551,523	04/18/2000	Pallavi Shah	83000.1069/P3523	1872

7590 06/17/2005

B. NOEL KIVLIN
MEYERTONS,HOOD,KIVLIN.KOWERT & GOETZEL, P.C.
P.O. BOX 398
AUSTIN, TX 78767-0398

EXAMINER

HA, LEYNNA A

ART UNIT	PAPER NUMBER
----------	--------------

2135

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/551,523

Applicant(s)

SHAH ET AL.

Examiner

LEYNNA T. HA

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 49-96 is/are pending in the application.
- 4a) Of the above claim(s) 49-96 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 58-72 and 90-96 is/are allowed.
- 6) ☒ Claim(s) 49-57 and 73-89 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. In view of the Appeal filed on February 22, 2005, PROSECUTION IS HEREBY REOPENED. The Non-Final rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

2. Claims 49, 51, 55, 57, 73, 74, 76, 80-83 and 85 are rejected under 35 U.S.C. 102(b).

Claims 50, 52-54, 56, 75, 77-79, 84, and 86-89, are rejected under 35 U.S.C. 103(a).

Claims 58-72 and 90-96 are allowed over prior art.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 49, 51, 55, 57, 73, 74, 76, 80-83 and 85 are rejected under 35 U.S.C. 102(b) as being anticipated by Mihara, et al. (US 5,481,757).

As per claim 49:

Mihara discloses a method for controlling access to a continuous stream of a content transmitted over a plurality of communication paths, the method comprising:

transmitting from a server [COL.8, lines 1-6] a plurality of notifications [COL.6, lines 37-41; where notifications was not specifically defined in the specification but the terms signals and messages were utilized so the Examiner broadly interprets notifications as signals or broadcasting signals as disclosed by Mihara] for determining a sequence of transmission [COL.9, lines 26-29 and 62-67] of said continuous stream [COL.5, lines 6-7] of said content via a plurality of communication paths; [COL.6, lines 42 and 58-67; a channel is inherently known as a path or a link through which information passes between to devices]

obtaining by a client said plurality of notifications; **[COL.7, lines 37-43]**

transmitting from said server said continuous stream of said content via said plurality of communication paths according to said sequence of transmission; and **[COL.7, lines 50-57]**

obtaining by said client said continuous stream of said content by automatically switching communication paths in accordance with said sequence of transmission of said content based on said plurality of obtained notifications. **[COL.5, lines 15-20]**

As per claim 51: See col.10, lines 8-10 and col.12, lines 36-42; discussing a sequence of transmission of said content determines which communication paths contain which parts of said continuous stream of said content at a given time.

As per claim 55: See COL.5, lines 6-7; discussing a continuous stream of said content comprises an individual television program.

As per claim 57: See COL.5, lines 14-26 [Mihara teaches the program (content) can be continuously viewed in a normal state only when a predetermined authentication signal is received, thus Mihara inherently teaches preventing non-authorized viewer from viewing the continuous stream of content if the predetermined authentication signal is not received within a predetermined time period (col.5, lines 6-8)]; discussing a switching of said communication paths prevents a non-authorized viewer from viewing said continuous stream of said content.

As per claim 73:

Mihara discloses a method for controlling access to a content transmitted over a plurality of communication paths, the method comprising:

transmitting to a subset of a plurality of clients in a secure manner mapping information for a content transmitted over said plurality of communication paths to said plurality of clients; **[COL.6, lines 55-67; a channel is inherently known as a path or a link through which information passes between to devices]**

switching automatically by said subset of a plurality of clients to a communication path of said plurality of communication paths that is transmitting said content; **[COL.5, lines 14-17 and COL.11, lines 9-16]**

signaling said subset of said plurality of clients with modified mapping information on a repeated basis during a course of a viewed presentation; and **[col.14, lines 18-49 and COL.16, lines 1-5; when signaling the modified mapping information on a repeated basis is inherently known for updating purposes so that the content can be routed properly.]**

switching automatically by said subset of a plurality of clients to a modified communication path of said plurality of communication paths based on said modified mapping information. **[col.13, lines 40-67]**

As per claim 74: See COL.5, lines 6-47 and col.13, lines 40-67; discussing switching automatically by said subset of a plurality of clients to communication path and to said modified communication path are performed without interfering with a continuity of a presentation of said content on said subset of said plurality of clients.

As per claim 76: See COL.9, lines 42-67; discusses mapping information is transferred via a dedicated communication path.

As per claim 80: See COL.11, lines 9-16 and col.14, lines 18-49; discussing dynamically selecting a next content transmission communication path.

As per claim 81: See COL.5, lines 44-47 and col.14, lines 18-49; discussing a modified mapping information comprises an indication to allow for switching of said next transmission communication path at a given time.

As per claim 82: See COL.14, lines 18-30; discussing indication comprises a frame number of said content.

As per claim 83:

Mihara discloses a system for controlling access to a content comprising:

a plurality of communication paths; a server; [COL.6, lines 37-41]

a plurality of notifications [COL.6, lines 37-41; where notifications was not specifically defined in the specification but the terms signals and messages were utilized so the Examiner broadly interprets notifications as signals or broadcasting signals as disclosed by Mihara] for determining a sequence of transmission [COL.9, lines 26-29 and 62-67] for determining a sequence of transmission of a content having a plurality of parts via said plurality of communication paths; and [COL.6, lines 42 and 58-67; a channel is inherently known as a path or a link through which information passes between to devices]

a client coupled to said server via said plurality of communication paths; [COL.6, lines 30-65]

wherein said plurality of notifications are transmitted from said server to said client; **[COL.8, lines 1-6]**

wherein said plurality of parts of said content are transmitted from said server over said plurality of communication paths according to said sequence of transmission; and **[COL.7, lines 50-57]**

wherein said client obtains said plurality of parts of said content by automatically switching communication paths in accordance with said sequence of transmission of said content based on said plurality of obtained notifications. **[COL.11, lines 9-16 and 31-33]**

As per claim 85: See col.10, lines 8-10 and col.12, lines 36-42; discussing a sequence of transmission determines which communication paths contain which parts of said content at a given time.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 50, 56, 75, 77-79, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mihara, et al. in further view of Beyer, et al. (US 5,235,619).

As per claim 50:

Mihara discloses the broadcasting station transmitting broadcasting signals to the terminal devices wherein the signals correspond to the frequency corresponding to the channels (col.4, lines 13-20) and modified mapping information (col.13, lines 40-67). However, Mihara fails to discuss signaling at irregular intervals.

Beyer teaches a cable TV distribution plant for distributing cable television notifications or signals to a subscriber where the headend sends signals to the subscribers in a downstream direction wherein the headend transmits signals instructing to determine and set the frequency and encoding the data for transmission (col.13, lines 30-34), and further discusses a frequency diverse system to support reliable communications and to avoid the interference includes several complimentary techniques such as frequency diversity, multiple (simultaneous communication channels and time randomized redundant message transmissions. (col.18, line 68 – col.19, line 5).

Therefore, it would have been obvious to combine Beyer who teaches transmitting signals at irregular randomized intervals with the teaching of Mihara because this technique supports reliable communications and avoids interference.

As per claim 56:

Mihara viewing said continuous stream of said content and automatically switching of said communication paths (COL.5, lines 14-17). Mihara did not implicitly discuss the viewer unaware when the channels are switching automatically.

Beyer teaches a cable TV distribution plant for distributing cable television signals to a subscriber wherein the headend transmits signals instructing to determine and set the frequency and encoding the data for transmission (col.13, lines 30-34). Further, Beyer discloses successively transmitting data (col.18, lines 4-5) by using the techniques of frequency diversity, multiple simultaneous communication channels (col.19, lines 1-5) and automatic switching by instantly switching the operation of one set of frequencies to another in order to avoid error and interference (col.19, lines 58-60).

It is obvious the combination of Mihara and Beyer offers the viewer to not be aware when the channels are automatically switched because Mihara/Beyer teaches automatically switching to different channels and the program continuously viewed in a normal state.

As per claim 75:

Mihara viewing said continuous stream of said content and automatically switching of said communication paths (COL.5, lines 14-17). Mihara did not implicitly discuss the viewer unaware when the channels are switching automatically.

Beyer teaches a cable TV distribution plant for distributing cable television signals to a subscriber wherein the headend transmits signals instructing to determine and set the frequency and encoding the data for transmission (col.13, lines 30-34). Further, Beyer discloses successively transmitting data (col.18, lines 4-5) by using the techniques of frequency diversity, multiple simultaneous communication channels (col.19, lines 1-5) and automatic switching by instantly switching the operation of one

Art Unit: 2135

set of frequencies to another in order to avoid error and interference (col.19, lines 58-60).

It is obvious the combination of Mihara and Beyer offers the viewer to not be aware when the channels are automatically switched because Mihara/Beyer teaches automatically switching to different channels and the program continuously viewed in a normal state.

As per claim 77:

Mihara discloses the broadcasting station transmitting broadcasting signals to the terminal devices wherein the signals correspond to the frequency corresponding to the channels (col.4, lines 13-20) and modified mapping information (col.13, lines 40-67). When signaling the modified mapping information on a repeated basis is inherently known for updating purposes so that the content can be routed properly. However, Mihara fails to discuss signaling at irregular intervals.

Beyer teaches a cable TV distribution plant for distributing cable television signals to a subscriber where the headend sends signals to the subscribers in a downstream direction wherein the headend transmits signals instructing to determine and set the frequency and encoding the data for transmission (col.13, lines 30-34), and further discusses a frequency diverse system to support reliable communications and to avoid the interference includes several complimentary techniques such as frequency diversity, multiple (simultaneous communication channels and time randomized redundant message transmissions. (col.18, line 68 – col.19, line 5).

Therefore, it would have been obvious to combine Beyer who teaches transmitting signals at irregular randomized intervals with the teaching of Mihara because this technique supports reliable communications and avoids interference.

As per claim 78: As rejected on the same basis as in claim 77.

As per claim 79: As rejected on the same basis as in claim 77.

As per claim 84:

Mihara discloses the broadcasting station transmitting broadcasting signals to the terminal devices wherein the signals correspond to the frequency corresponding to the channels (col.4, lines 13-20) and modified mapping information (col.13, lines 40-67). However, Mihara fails to discuss signaling at irregular intervals.

Beyer teaches a cable TV distribution plant for distributing cable television signals to a subscriber where the headend sends signals to the subscribers in a downstream direction wherein the headend transmits signals instructing to determine and set the frequency and encoding the data for transmission (col.13, lines 30-34), and further discusses a frequency diverse system to support reliable communications and to avoid the interference includes several complimentary techniques such as frequency diversity, multiple (simultaneous communication channels and time randomized redundant message transmissions. (col.18, line 68 – col.19, line 5).

Therefore, it would have been obvious to combine Beyer who teaches transmitting signals at irregular randomized intervals with the teaching of Mihara because this technique supports reliable communications and avoids interference.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 52-54 and 86-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mihara, et al. in further view of Hendricks, et al. (US 6,828,993).

As per claim 52:

Mihara discloses the broadcasting station transmitting broadcasting signals to the terminal devices wherein the signals corresponds to the frequency corresponding to the channels and also transmits authentication signal (col.4, lines 13-20 and col.5, lines 7-8). However, Mihara fails to discuss encrypting the signals.

Hendricks discloses a television program delivery system consists of the set top terminals (client) receiving signals from the cable headend (server) where the headend demultiplexes and recombines the signals. In addition, the headends allocates different portions of the signal to different frequency ranges, which accommodates and offers

Art Unit: 2135

different subscribers different programs (col.8, lines 7-17) and performs any necessary signal decryption and/or encryption (col.8, lines 29-30).

It would have been obvious for a person of ordinary skills in the art to modify Mihara by encrypting the signals as taught in Hendricks, because encryption prevents unauthorized access to the information contained in the signal during transmission from the server to the client.

As per claim 53:

Mihara discloses the broadcasting station transmitting broadcasting signals to the terminal devices wherein the signals corresponds to the frequency corresponding to the channels and also transmits authentication signal (col.4, lines 13-20 and col.5, lines 7-8). However, Mihara fails to include decrypting the encrypted signals.

Hendricks discloses a television program delivery system consists of the set top terminals (client) receiving signals from the cable headend (server) where the headend demultiplexes and recombines the signals. In addition, the headends allocates different portions of the signal to different frequency ranges, which accommodates and offers different subscribers different programs (col.8, lines 7-17) and performs any necessary signal decryption and/or encryption (col.9, lines 27-29).

It would have been obvious to modify Mihara by encrypting the signals as taught in Hendricks, because encryption prevents unauthorized access to the information contained in the signal during transmission from the server to the client. Since the Mihara-Hendricks combination obviously discloses encrypting the signals, it would have

been obvious to be able to decrypt the signal in order to obtain the information corresponding to the signal.

As per claim 54: See Mihara on COL.6, lines 39-42; Mihara does not teach encrypting the signals wherein recites the headend sends out and modulates the television signals corresponding to the channels.

As per claim 86:

Mihara discloses the broadcasting station transmitting broadcasting signals to the terminal devices wherein the signals corresponds to the frequency corresponding to the channels and also transmits authentication signal (col.4, lines 13-20 and col.5, lines 7-8). However, Mihara fails to include decrypting the encrypted signals.

Hendricks discloses a television program delivery system consists of the set top terminals (client) receiving signals from the cable headend (server) where the headend demultiplexes and recombines the signals. In addition, the headends allocates different portions of the signal to different frequency ranges, which accommodates and offers different subscribers different programs (col.8, lines 7-17) and performs any necessary signal decryption and/or encryption (col.9, lines 27-29).

It would have been obvious to modify Mihara by encrypting the signals as taught in Hendricks, because encryption prevents unauthorized access to the information contained in the signal during transmission from the server to the client. Since the Mihara-Hendricks combination obviously discloses encrypting the signals, it would have been obvious to be able to decrypt the signal in order to obtain the information corresponding to the signal.

As per claim 87: See Mihara on COL.6, lines 39-42; Mihara does not teach encrypting the signals wherein recites the headend sends out and modulates the television signals corresponding to the channels.

As per claim 88: See Mihara on COL.5, lines 6-7; discussing content comprises a continuous stream of an individual television program.

As per claim 89: See col.1, lines 23-30 [CATV can be used for internet connections to provide digital data across from subscriber to subscriber, therefore a web page is necessary for internet usage]; discussing content comprises a web page.

Allowable Subject Matter

6. Claims 58-72 and 90-96 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

Mihara, et al teaches a CATV broadcasting station system for controlling access to a content comprising a plurality of notifications [COL.6, lines 37-41] for determining a sequence of transmission [COL.9, lines 26-29 and 62-67] for determining a sequence of transmission of a content having a plurality of parts via said plurality of communication paths [COL.6, lines 42 and 58-67] wherein said plurality of notifications are transmitted from said server to said client

[COL.8, lines 1-6] over said plurality of communication paths according to said sequence of transmission [COL.7, lines 50-57] wherein said client obtains said plurality of parts of said content by automatically switching communication paths in accordance with said sequence of transmission of said content based on said plurality of obtained notifications [COL.11, lines 9-16 and 31-33].

Hendricks, et al teaches a television program delivery system consists of the set top terminals (client) receiving signals from the cable headend (server) where the content have a plurality of parts and plurality of communication paths (col.10, lines 4-5). Hendricks also discloses allocating different portions of the signal to different frequency ranges which accommodates and offers different subscribers different programs (col.8, lines 7-17) and performs any necessary signal decryption and/or encryption (col.9, lines 27-29).

However, prior art such as Mihara and Hendricks fails to teach the allowable limitation of the independent claims that included transmitting another encrypted notification of another communication path on which another part of said content will be transmitted at another given time from the server and transmitting said another part of said content on said another communication path at said another given time wherein viewing another part of said content on said communication path via said client.

Further, prior art including Mihara and Hendricks fails to teach the allowable limitation of each of the plurality of encrypted notifications notifying the client of a communication path on which corresponding part of said

Art Unit: 2135

content will be transmitted at a give time wherein the server repeatedly transmits an encrypted notification the plurality of notifications until all parts of said content have been transmitted. Further, Hendricks fails to teach automatically switching of another communication path at another given time.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEYNNA T. HA whose telephone number is (571) 272-3851. The examiner can normally be reached on Monday - Thursday (7:00 - 5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LHa


KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100